We Claim:

1. A method for the production of chymosin in a plant seed comprising:

a) introducing into a plant cell a chimeric nucleic acid sequence molecule comprising in the 5′ to 3′ direction of transcription:

1) a first nucleic acid sequence capable of regulating transcription in said plant cell operatively linked to;

2) a second nucleic acid sequence encoding a chymosin polypeptide operatively linked to;

3) a third nucleic acid sequence capable of terminating transcription in said plant cell;

b) growing said plant cell into a mature plant capable of setting seed; and

c) obtaining seed from the mature plant wherein said seed contains chymosin.

2. The method according to claim 1 wherein said first nucleic sequence capable of regulating transcription in said plant cell is a seed-specific promoter.

3. The method according to claim 3 wherein said seed-specific promoter is a phaseolin promoter.

4. A method according to claim 1 wherein at least 0.5% (w/w) of the total seed protein is chymosin.

5. The method according to claim 1 wherein the second nucleic acid sequence encoding a chymosin polypeptide comprises a nucleic acid sequence encoding a chymosin pro-peptide, a nucleic acid sequence encoding a chymosin pre-peptide or a nucleic acid sequence encoding chymosin pre-pro-peptide.

6. The method according to claim 5 wherein the second nucleic acid sequence encoding a chymosin polypeptide further comprises a nucleic acid sequence encoding a plant signal sequence.

7. The method according to claim 1 wherein the second nucleic acid sequence encoding a chymosin polypeptide further comprises a nucleic acid sequence encoding a plant signal sequence.

8. The method according to claim 7 wherein the plant signal sequence is a tobacco PR-S sequence.

9. The method according to claim 8 wherein the nucleic acid sequence encoding chymosin linked to a PR-S signal sequence comprises a nucleic acid sequence as in SEQ.ID.NO.:1.

10. The method according to claim 1 wherein said third nucleic acid sequence is a phaseolin terminator.

11. The method according to claim 1 wherein the chymosin is a mammalian chymosin obtainable from a bovine, sheep or goat source.

12. The method according to claim 6 wherein codon usage for said nucleic acid sequence encoding chymosin, chymosin pro-peptide, chymosin pre-peptide and chymosin pre-pro-peptide has been optimized for use in plants.

13. The method according to claim 1 wherein said plant is selected from the group of plants consisting of soybean (*Glycine max*), rapeseed (*Brassica napus, Brassica campestris*), sunflower (*Helianthus annuus*), cotton (*Gossypium hirsutum*), corn (*Zea mays*), tobacco (Nicotiana tobacum), alfalfa (*Medicago sativa*), wheat (*Triticum sp.*), barley

(*Hordeum vulgare*), oats (*Avena sativa L.*), sorghum (*Sorghum bicolor*), Arabidopsis thaliana, potato (*Solanum sp.*), flax/linseed (*Linum usitatissimum*), safflower (*Carthamus tinctorius*), oil palm (*Eleais guineeis*), groundnut (*Arachis hypogaea*), Brazil nut (*Bertholletia excelsa*) coconut (*Cocus nucifera*), castor (*Ricinus communis*), coriander (*Coriandrum sativum*), squash (*Cucurbita maxima*), jojoba (*Simmondsia chinensis*) and rice (*Oryza sativa*).

14. The method according to claim 1 wherein at least 1% (w/w) of said total seed protein is chymosin.

15. The method according to claim 1 wherein at least 2% (w/w) of said total seed protein is chymosin.

16. The method according to claim 1 wherein at least 4% (w/w) of said total seed protein is chymosin.

17. A method for the production of plant seeds containing at least 0.5% (w/w) chymosin in the total seed protein comprising:

(a) introducing into each of at least two plant cells a chimeric nucleic acid sequence molecule comprising in the 5′ to 3′ direction of transcription:

1) a first nucleic acid sequence capable of regulating transcription in said plant cell operatively linked to;

2) a second nucleic acid sequence encoding a chymosin polypeptide operatively linked to;

3) a third nucleic acid sequence capable of terminating transcription in said plant cell;

(b) growing each plant cell into a mature plant capable of setting seed;

(c) obtaining seed from each mature plant;

(d) detecting the levels of chymosin in the seed of each plant obtained in step (c) or in the seed of a plant generated from the seed of a plant obtained in step (c); and

(e) selecting plants that contain at least 0.5% (w/w) chymosin in the total seed protein.

18. A method according to claim 1 further comprising (d) isolating said chymosin from said seed.

19. A method according to claim 18 wherein (d) isolating said chymosin from said seed comprises:

(i) crushing the plant seed to obtain crushed plant seed;

(ii) contacting the crushed plant seed or a fraction thereof with a protein binding resin; and

(iii) recovering chymosin from the protein binding resin.

20. A method according to claim 18 wherein (d) isolating said chymosin from said seed comprises:

(i) crushing of the plant seed to obtain crushed plant seed;

(ii) fractionating the crushed plant seed into an oil fraction, aqueous fraction and a fraction comprising insoluble material;

(iii) contacting the aqueous fraction with a protein binding resin; and

(iv) recovering the chymosin from the protein binding resin.

21. A method according to claim 19 wherein said protein binding resin is a hydrophobic interaction resin.

22. A method according to claim 20 wherein said protein binding resin is a hydrophobic interaction resin.

23. A method according to claim 22 further comprising using an ion exchange resin to further purify the chymosin.

24. Plant seed comprising at least 0.5% (w/w) heterologously expressed chymosin.

25. Plant seed prepared according to the method of claim 1.

26. Plant seed prepared according to the method of claim 17.

27. A plant capable of setting seed comprising at least 0.5% (w/w) of heterologously expressed chymosin.

28. A plant capable of setting seed prepared according to the method of claim 1.